The following activities were taken from Scholastic Inc.'s, Team Nutrition classroom resource materials, "Food Grows," for Grades 3-5. To order a complete set of materials for this and other grade levels, call 1-800-SCHOLAS(TIC).

# Food Grows

## Celebrate Your School's Abundant Harvest this Thanksgiving

### What Students Do

**trace the origin of food from plants to plate • make a mobile of the food chain • test the conditions under which plants grow best • grow their own meal**

### Skills Developed

**learning about the food chain • recording and reporting data • understanding cause and effect • drawing conclusions**

### Materials

**hangers • wool • chart paper • paints or markers • four healthy seedlings • potting soil • pots for plants • small, brown paper bag**

## Activity 1 Participate in Gleaning and Food Recovery Activities

Since it was founded in 1862, the U.S. Department of Agriculture has been known as the "People's Department" because it has a direct, positive impact on people's lives. USDA has begun a gleaning and food recovery initiative that continues this legacy by serving as a catalyst to feed hungry families. USDA is leading a national effort to coordinate public and private projects to rescue the millions of pounds of healthful food in this country that would otherwise be thrown away even as millions of Americans go hungry.

**Challenge students to participate in gleaning activities to teach them creative ways to help reduce hunger in America.**

- Start a school garden that gives a portion of the harvest to feed banks, soup kitchens, and other food recovery programs.
- Contact your State or country USDA Farm Service Agency (FSA) office to partner in a gleaning project. (These local offices can be found in most phone books in the blue government pages under "Federal government—Agriculture Department.") FSA is the entity that knows what is being grown by farmers in a given area, how the crops are coming along, and when they will be ready to be harvested. FSA is a critical conduit to the farmers and can be an extremely valuable resource in helping to identify donors for gleaning projects.
- Organize a food drive (see Food Guide Pyramid Food Drive beginning on page 22) and donate food to a local food bank or pantry.
- Work with existing community organizations to assist ongoing food recovery efforts at food banks or other community organizations.
- Organize essay, oratorical or art contests for school children to focus on a child's view of hunger and the benefits of helping those in need.

To get involved or to start implementing these or other gleaning activities, contact USDA's "1-800-GLEAN-IT" toll-free hotline.

## Activity 2

Where does food come from? What do all living things need in order to survive? Students begin their investigation of the role nutrition plays in their lives by answering these key questions.

### Getting Started

• Ask students to discuss what they ate for lunch. A volunteer can list the foods on the chalkboard or on chart paper.

• Have the class trace the "history" of one of the foods listed. They follow their food's journey backwards from the plate to the kitchen, to the store, to the factory, to the farm, to the plant. (Even meat and dairy products can be traced back to plants when students think about what animals and fish eat.)

• Ask each student to pick another food and trace its history. Give them a two-minute time limit to map out the journey from where it originated to their plates. Those who choose fresh or frozen foods (including meat) will find the route from farm to plate is a relatively short one. Students who choose highly processed foods, such as candy, may need help taking the history further than the factory.

**Challenge students to think of anything they have eaten in the last 24 hours that did not, at some point in its existence, depend on plant life.**

## Activity 3 What Do Living Things Need to Grow?

Students have seen that we depend on plants and animal products for our nutrition. Ask them to brainstorm the conditions under which plants and animals grow strong and healthy, and write their ideas on chart paper. Tell them that in order to examine the connection between healthy conditions and healthy growth, they can investigate what happens when a plant is grown under different conditions. Divide students into four teams of scientists. Each team will observe seedlings growing under one set of conditions:

- with soil, regular watering, and plenty of sunlight
- with soil and water, but no sunlight
- with sunlight and water, but no soil
- with soil and sunlight, but no water.

Encourage students to come up with other variables they can test, such as growing one plant inside a window and another outside, and so on. Students should clearly record what they deny the plant—water, warmth, light, air, or soil. Over two weeks, students keep a record of what they observe. "My Lab Notes" can help them keep tract of how their plants grow.

### Wrap it up—Save the Results

At the end of the two weeks, students compare results. Each team names a spokesperson to tell the class about their experiment. After the results of the experiments have been shared and discussed, students list the things plants must have in order to survive. Then list the conditions that resulted in the healthiest plant.

**Challenge students to make comparisons between the needs of plants and our needs.**

### Take It Further

**Grow A Meal** Students can use what they learned to grow the ingredients for a meal. They decide what plants they would like to eat as part of a salad or as pizza toppings. They go to a seed or gardening store and ask the assistants to help them choose seeds from their list of ingredients that might be easily grown. They then plant their meal garden. Remind them that they may have to stagger their planting, so that all the ingredients are ready at the same time. Use the foods to prepare a special school lunch for students and their parents for Thanksgiving or any time of year.

### Home Connection

Encourage students to continue learning about gardening by tending a container garden with family members.

# Gardening Together

What's one of the best ways to help your child learn where foods come from? Of course—grow you own! Gardening shows your child how plants grow from seeds and what seeds need to mature into healthy plants. Here are some simple gardening activities children can help with and learn from.

## Grow a Container Garden

Ready to dig into the soil? If you lack space for an outdoor garden, you and your child can have a small "container garden" on your back porch or city terrace. Leaf lettuce, radishes, and shorter varieties of tomatoes and carrots can all be grown in pots. Here's how:

- Cover the drainage hole in the bottom of the pot with a flat stone. That keeps the soil from trickling out.
- Fill the container with soil almost to the top. For best results, use potting soil from a nursery or variety store.
- Dig holes for the seeds. Check the seed packet to see how deep to dig. (Save the seed packet. You'll need information on it once it's time to thin the young plants.)
- Place a seed in each hole. Gently pat the soil over each seed.
- Water lightly with a fine mist. The soil should be moist, not soaked.
- Check the seed packet for the amount of sun the plants need.
- Depending on the kind of seeds, they may take from 3 to 17 days to sprout. Once they do, pull out plants that are too close together, to give the remaining plants more root space.
- Remember that plants in containers depend on you for water and food (fertilizer). Keep the soil moist.

## Feeding Your Garden

Show your child how old food can be recycled to create new food for new plants by starting a compost pile that can "feed" your garden.

- You'll need a leakproof container with a lid, such as a small garbage pail. Food scraps, except meat, bones, and grease, can go in the compost pile. Drain off any liquid, then add the scraps to the container and top with a thin layer of soil. You can also add decaying leaves to the pile. Add more layers of food and soil each day until the compost pile is about four inches deep. (Keep the lid on to keep animal scavengers away.) Now just stir the food-soil mixture daily and mist with water to keep it damp.
- After about a month, your composted matter will be ready to fertilize your garden.

Name _____

# My Lab Notes

Scientists always keep detailed records of their observations. As you do you plant experiments, you can record your observations below.

Type of plant _____

What I am giving the plant to grow:

_____ soil _____ water _____ light _____ other

## My Observations

Draw your plant and describe your observations below.

Day 1. Date _____

Day _____ Date _____

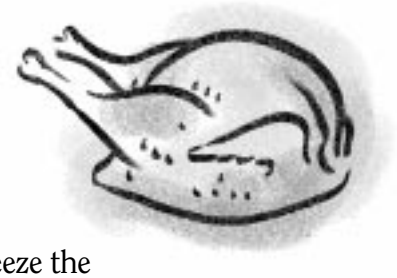
Day _____ Date _____

Day _____ Date _____

The following information was provided by the U.S. Department of Agriculture
Food Safety and Inspection Service.

# Turkey Tips

- Though it may take some searching, try to buy a fresh turkey this Thanksgiving. It will make a tasty treat!

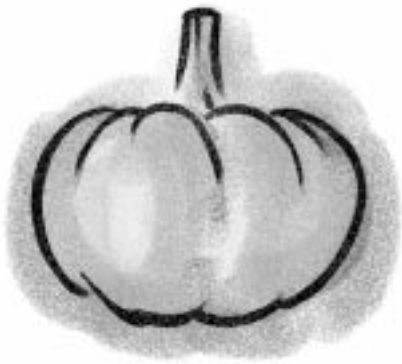


- If you buy a frozen turkey, make sure to thaw the turkey in an unopened wrapper on a tray in the refrigerator. DO NOT THAW AT ROOM TEMPERATURE!
- If you decide to do something else for Thanksgiving, you may refreeze the turkey as long as it has not been in the refrigerator for more than two to three days. Make sure to place it on the floor of the freezer so it will freeze quickly.
- Do not stuff the bird before you are ready to cook it. Refrigerating stuffed, raw turkey is a great breeding ground for bacteria.
- Do not partially cook a turkey one day and then cook the rest the next day. This does not shorten the cooking time as you still have to bring the internal temperature up to the recommended range. Also bacteria may multiply.
- A cooked turkey will stay warm for up to an hour if covered with foil.
- After serving the turkey remove any remaining stuffing and refrigerate in a covered bowl or wrap well and freeze. Use refrigerated stuffing within three days. Frozen stuffing will last one month.
- The whole turkey or meat from the bones may be refrigerated and remain fresh for three days. Or it can be wrapped and frozen for two months.
- Leftover turkey can be made into sandwiches without mayonnaise. Wrap them well and freeze. They will thaw by noon and will be ready to eat for lunch.

**Recipe of the Month**

The following recipe was taken from Team Nutrition's *Food, Family & Fun: A Seasonal Guide to Healthy Eating.* Turn to page 104 for ordering information.

# Harvest Pumpkin Bread



Approximately 1 Hour, 10 Minutes, Serves 12

1 cup sugar
1/4 cup margarine
1/4 cup applesauce
2 eggs
1 cup (8 oz) solid pack pumpkin
2 cups all purpose flour
1/2 tsp. salt
2 tsp. baking powder
1/4 tsp. baking soda
1 tsp. ground cinnamon
1/2 cup raisins
1 tsp. grated orange rind
1/4 cup orange juice
1/2 cup walnuts, chopped (optional)

Preheat oven to 350°F

1. Lightly grease a 9″× 5″× 3″ loaf pan or coat with vegetable spray.
2. Beat sugar, margarine and applesauce until creamy and light (about 5 minutes). Add eggs one at a time and continue to beat. Add pumpkin and mix until smooth.
3. Combine flour, salt, baking powder, baking soda, and cinnamon. Stir into pumpkin mixture and mix until smooth.
4. Add raisins, orange rind, orange juice and nuts (optional). Stir well and pour into loaf pan.
5. Bake at 350°F for 60-65 minutes. You can test doneness by sticking a wooden pick into loaf. If it comes out clean, the loaf is done.
6. Cut into 12 slices.

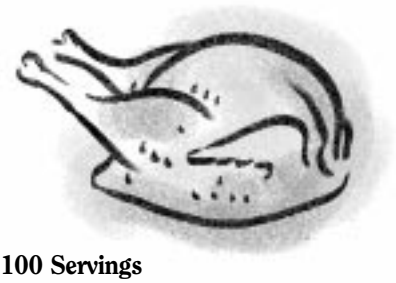
**Nutrients per serving (1 slice)**

| | | |
|---|---|---|
| Calories . . . . . 220 | Saturated Fat. . . . . 0.9 g | Iron . . . . . 1.7 mg |
| Protein. . . . . 3.7 g | Cholesterol . . . . . 35 mg | Calcium . . . . . 65 mg |
| Carbohydrate. . . . . 42 g | Vitamin A. . . . . 513 RE | Sodium . . . . . 261 mg |
| Total Fat. . . . . 4.9 g | Vitamin C . . . . . 3 mg | Dietary Fiber . . . . . 2 g |

**Recipe of the Month**

This recipe was developed for The School Lunch Challenge, the 1994 American Culinary Federation National Championship. Adjustments have been made by USDA for institutional use.
Turn to page 104 for more information on this resource.

# Turkey Pita Pizzazz



| Ingredients | 50 Servings Weight | Measure | 100 Servings Weight | Measure |
|---|---|---|---|---|
| *Tomato Sauce* | | | | |
| Minced garlic | | 1/2 tsp. | | 1 tsp. |
| Bay leaf | | 4 ea | | 8 ea |
| Dry basil leaves | | 2 tsp. | | 1Tbsp, 1 tsp. |
| Dry thyme leaves | | 1 tsp. | | 2 tsp. |
| White pepper | | 1/8 tsp | | 1/4tsp |
| Oregano leaves | | 2 tsp. | | 1 Tbsp., 1 tsp. |
| Canned tomato juice | 2 oz | 1/4 cup | 4 oz | 1/2 cup |
| Canned tomato sauce | 1 lb | 2 cups | 2 lb | 1 qt |
| Canned tomatoes | 1 lb | 1¾ cups | 2 lb | 3½ cups |
| *Whole wheat or white* | | | | |
| *Pita pockets, 6 inch* | | 25 | | 50 |
| *Spinach leaves, wilted* | 1 lb., 9 oz | | 3 lb., 2 oz | |
| *Cooked turkey breast, julienned* | 3 lb., 2 oz | | 6 lb., 4 oz | |
| *Mozzarella cheese, shredded* | 3 lb., 2oz | | 6 lb., 4 oz | |

**Directions:**

1. Combine garlic, spices and tomato juice in a saucepan or steam kettle. Boil and reduce until almost dry. Add tomato sauce and tomatoes. Bring to a boil and simmer for 10 minutes. Remove from heat. Remove bay leaves.
2. Spread 1 oz of tomato sauce over each whole pita bread.
3. Place 1/4 cup of lightly blanched spinach on sauce and top with 2 oz of turkey.
4. Place 2 oz (1/2 cup) shredded cheese on top of turkey.

## Turkey Pita Pizzazz

5. Bake in a conventional oven at 350°F for 13 minutes or a convection oven at 350°F for 8 minutes, until cheese is melted.
6. Cut into halves and serve one half per serving.

**Nutrients Per Serving**

| | | |
|---|---|---|
| Calories . . . . . 219 kcal | Protein. . . . . 19 g | Carbohydrate. . . . . 20 g |
| Total Fat. . . . . 7.5 g | Saturated Fat. . . . . 3.6 g | Cholesterol . . . . . 20 mg |
| Vitamin A. . . . . 1367 IU | Vitamin C . . . . . 4 mg | Iron . . . . . 2 g |
| Calcium . . . . . 216 g | Sodium . . . . . 389 mg | Dietary Fiber . . . . . 3 g |

# Highlights & Resource Information

## American Education Week

The 1st full week preceding the 4th Thursday in November. Established by Presidential Proclamation. Focuses attention on the importance of education and all that it stands for. Contact: Connie Morris, National Education Association (NEA), 1201 16th Street, NW, Washington, DC 20036. Tel: (202) 822-7292.

## Child Safety and Protection Month

To promote child safety and protection and inform PTA members about important issues affecting the lives of children and youth by suggesting a variety of year-round preventative projects for parents, schools and communities. National PTA, Ms. Ginny Markell, 2000 L St., NW, Suite 600, Washington, DC 20036. Tel: (202) 331-1380.

## National Diabetes Month

Increases public awareness of the seriousness of diabetes and its complications. Also draws attention to the American Diabetes Association and its goals to encourage improved education and care for those who suffer from the disease. Contact: American Diabetes Association, 2180 WSR 434, Suite 2100, PO Box 915559, Longwood, FL 32791-5559.

## National FFA Convention

The 70th National FFA (Future Farmers of America) convention will be held in Kansas City, MO. The mission of the convention is to make a positive difference in the lives of students by developing their potential for premier leadership, personal growth, and career success through agriculture education. Contact: Coleman Harris, 5632 Mt. Vernon Highway, Alexandria, VA 22309-0160. Tel: (703) 360-3600, Ext. 202. Fax: (703) 306-5524.

## National Split Pea Soup Week

To promote the use of split peas in split pea soup. Contact: USA Dry Pea & Lentil Industry, Randy Duckwarth, 5071 Highway 8 West, Moscow, Idaho 83843. Tel: (208) 882-3023. Fax: (208) 882-6406.